

# INFORMATION REPORT INFORMATION REPORT

## CENTRAL INTELLIGENCE AGENCY

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COUNTRY USSR (Moscow Oblast)

REPORT

SUBJECT Internal Grinding Machine Plant 221,  
Moscow

DATE DISTR.

29 September 1960

NO. PAGES

1

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DATE OF  
INFO.PLACE &  
DATE ACQ

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two attachments on the internal grinding machine

Moscow

Attachment 1: This six-page report deals with the functions of the various plant shops and gives the number of inspection personnel (OTK) assigned to each shop. It also lists supervisory personnel of the plant with a brief description of each person named.

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Attachment 2: Hearsay among the workers was that Plant 221 was a military plant. In this two-page report are described two items processed in Shop No. 2-a manual wire cutter and a certain type of flange or bolt. The flange is also sketched. Employees talked about both items as if they were for military use.

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STATE	X	ARMY	#	X	NAVY	X	AIR	15	NSA	X	OCR	X	NIC	X
(Note: Washington distribution indicated by "X"; Field distribution by "#")														

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*11. 1*

COUNTRY: USSR (Moskovskaya oblast) REPORT

SUBJECT: New Production in Plant 221

DATE OF REPORT: 14 July 1960

### NEW PRODUCTION IN PLANT 221

1. [redacted] the Internal Grinding Machine Plant (No. 221)  
[redacted] about 55 percent of the plant's  
3,000 member work force were male.

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2. A machine shop containing an unknown number of new Soviet make vertical boring and turning lathes, planers, and other machines was located on the first floor of an unfinished building whose construction was initiated in 1955. It was rumored that the plant labor force would be increased upon the completion of this new two-story building which was about 70 by 30-40 meters in area dimension. There were no secret shops at the plant.

### Production Changes

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3. [redacted] the plant was engaged in the production of internal grinding and threading machines, polishing machines, ball bearing grinding machines, special machines ordered through the Machine Construction

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Ministry and a limited amount of kitchenware and cutlery for domestic consumption. [redacted] in 1955-1956, the plant produced 10 to 20 threading machines monthly, and a slightly larger number of internal grinding machines. The Machine Construction Ministry submitted designs for special machines to the OKB of Plant 221, and the engineer-constructors of the plant made blueprints of the various component parts, which were copied by draftsmen and given to Shops 1 and 2. All blueprints were signed by the chief technologist, Moyshev, and the chief engineer.

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4. In 1953, Shop No. 5, which was an assembly shop for special order machines, began production of a vertical boring machine which was copied from [redacted] under the direction of engineer Lyurey (fnu). In 1954 or 1955 Lyurey supervised the production of a high precision coordinated vertical and horizontal boring machine (sic), and [redacted] five of these units were produced in 1956. The tolerance on component parts of the coordinate boring machine was one-two microns. [redacted] the coordinate boring machine as two-three meters in length, three<sup>to</sup>three and one-half meters in height, 0.50-0.60 centimeters in width. The machines had turn handles to move the drills (one for the horizontal, one for the vertical drill). There were plates, placed on top of 75 rollers to permit movement of parts to be drilled. The machine had magnifying optical sights, made in the plant optical shop. The magnifying lenses were set in red velvet within a black plastic frame, and had special covers also lined with red velvet. The lenses were about 35-40 millimeters in diameter (thickness and magnifying power unknown). The machine could bore holes up to one micron in tolerance. The rollers, on which the plates were balanced, were of two sizes; some were 20-25 millimeters long, with a diameter of 16 millimeters, and the others were 18 millimeters long with a diameter of 11 millimeters.

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[redacted] the tolerance was one micron. Shop No. 5 was always kept at a temperature of 20 degrees centigrade in order to prevent shrinkage or expansion of the steel. [redacted] in 1953 Plant 221 was the only plant in the entire USSR which manufactured coordinate-boring machines.

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Shop Organization and OTK Strength

5. [ ] the functions of the following plant shops and [ ]  
the number of OTK personnel assigned to each section [ ]

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<u>Shop No.</u>	<u>Function</u>	<u>Equipment</u>	<u>Personnel</u>	<u>OTK Section</u>
1	machine shop producing gears, shafts, spindles, housings, bushings, and various components	same as <sup>Shop</sup> No. 2, 10 milling machines, 10 vertical and horizontal lathes, six automatic turret lathes, five polishing-grinding machines, four planing machines, three boring machines	200	one senior inspector, six inspectors
2	same as Shop No. 1 only different type details		200	same as No. 1
3	produced cylindrical shaped tractor parts			four inspectors
4	assembled internal grinding machines			one senior inspector, seven inspectors
5	produced and assembled coordinated boring machines			five OTK precision specialists
6	produced kitchenware, cutlery			two or three inspectors
7	chrome-nickel plating			same as Shop 6

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<u>Shop No.</u>	<u>Function</u>	<u>Equipment</u>	<u>Personnel</u>	<u>OTK Section</u>
8	instrument shop			one senior inspector, four inspectors
9	electrical repairs			none
10	optical shop			one senior inspector, four inspectors
11	molding and carpentry shop			two inspectors
12	foundry			unknown

6. The plant had also a tempering-cementing shop, machine repair shop, two laboratories (one for OTK, one for material), a fire department, a guard section, a railroad section, a garage, warehouses, and a club-library, polyclinic, restaurant, sports club, and Party and Profsoyuz units for plant personnel. [redacted] the administrative-technical office, consisting of constructors, engineers, technologists, draftsmen, copying personnel, was staffed by about 100 workers. In one laboratory all optical lenses, precision instruments, and metals and foundry products were checked. Personnel in the other laboratory tested the performance and precision of finished machines.

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7. [redacted] never saw military personnel among the technical staff, or the OTK inspectors who were all civilians. [redacted]

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8. [redacted] 105 percent was the highest individual percentage of norm fulfillment, however the plant as a whole did not fulfill its norm. In both 1953 and 1954 Shop No. 3 turned out tractor parts [automatic line (sic)] valued at six million rubles and as a result Shop No. 3 personnel received an extra premium each of these years.

#### Raw Materials

9. Plant 221 received ShKh-15 steel, a very hard steel which came in sheets, 2 meters x 1 meter x 1-3 millimeters in size, and in grooved round forms 20-30 millimeters in diameter, three-four meters in length. Other raw materials were laminated glass (plastiglas) and chassis for machinery. [redacted]

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Shipping and Marking

10. The finished machines were shipped in unpainted pine boxes, about two-three x three-three and one-half x 0.60 meters. The boxes bore the following markings:

sender  
weight (total)  
weight of machine  
address (name of town or country only)

[ ] saw crates into which coordinated boring machines were being placed. These crates were addressed to China, Budapest, Belgrade, Leningrad, Kiev, or Moscow. [ ]

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[ ] It was rumored in the plant that most of the coordinated boring machines were shipped outside of the USSR.

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Relations with other Facilities

11. [ ] an alpine mountain climbing club. [ ] membership was restricted to machine construction plant workers. At the mountain climbing base [ ] workers from Kharkov, Minsk, Tiflis, Orzhonikidze, and other Moscow machine construction plants (names or numbers of plants unknown). All members of [ ] alpine club were civilians. [ ] the Armed Forces had separate alpine clubs.

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Civil Defense Training in Plant 221

12. In 1954-1955 officials of the Communist Party gave civil defense lectures to Plant 221 employees. These lectures were held about twice a month during lunch time and lasted about one-half hour. Attendance was not mandatory but foremen encouraged a large attendance. [ ] Also in 1954-55 the plant telephone lines which were above ground were removed from the telephone poles and placed underground.

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Supervisory Personnel

13. [redacted] the following plant supervisory personnel:

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Yakovlev (fnu) [redacted] was the plant director. [redacted]

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Moiseyev (fnu) [redacted] was the chief technologist. [redacted]

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Kalika (fnu) [redacted]  
[redacted] was at one time chief of Shop No. 3, but was transferred in 1953 to an unknown plant.

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Minchonov (fnu) [redacted] was the chief of the construction office up to 1953-1954, when he was transferred to an unknown plant.

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Bron (fnu), [redacted] was another constructor.

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Shashkov (fnu), [redacted], was the chief of the machine shop No. 2.

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Ralnikov (fnu) [redacted] was chief of Shop No. 5, [redacted]

Belikov (fnu), [redacted] was the technologist of the instrument shop. [redacted]

Yanin (fnu) [redacted] was chief of the optical shop. [redacted]

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Nil Somenovich Osnovinsk [redacted] was chief of the plant OTK.

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Popov (fnu), [redacted]  
was deputy chief of Shop No. 3.

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Rybakov (fnu), [redacted]  
was chief of one of the shops, possibly Shop No. 1.

Lyurey (fnu), Chief of Shop No. 3, was an engineer-constructor

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FIELD INFORMATION REPORT

COUNTRY: USSR (Moskovskaya  
oblast)

SUBJECT: Internal Grinding Machine  
Plant (221), Moscow

DATE OF REPORT: 9 June 1960

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INTERNAL GRINDING MACHINE PLANT (221), MOSCOW

1. [redacted] the Internal Grinding Machine Plant  
(Plant 221), Moscow, [redacted]

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Production

2. [redacted] this plant, which was  
located on Paveletskaya naberezhnaya in Kirovskiy rayon.  
Moscow, was a military plant [redacted]

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[redacted] for manual wire-cutters (nozhi). The materials for  
these cutters were supplied to Shop No. 2 by Shop No. 1.  
About 300 pairs of wire-cutters were ground and polished by  
two workers during this period. The shears were not  
assembled at Shop No. 2, and the type of handle to be  
attached to the cutters was unknown [redacted] No one was  
certain that this was a military order, but nevertheless

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the workers talked about the product as though it were for military use. Work on this item was also conspicuously well paid, i.e. three rubles per pair if completed in 20 minutes.

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3. Another item processed [redacted] in Shop No. 2 was a type of flange (or bolt), with a two centimeter square base, produced in two lengths; 40 centimeters and about 60 centimeters, as illustrated below. This was a standing order, and many of the workers of Shop No. 2 were engaged in the manufacture of these items. About 800 such flanges, or bolts (flantsy) were ground and polished during each month [redacted] This order was also labeled as a military order by the shop workers.

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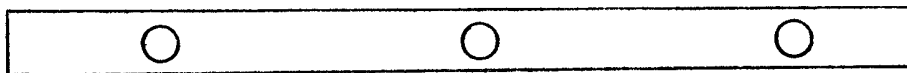
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Flange or bolt

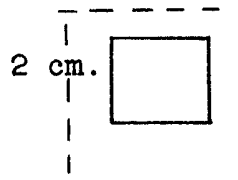
— — — — — 60 centimeters — — — — —



Side view



Viewed from above



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